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In Cooperation with State and Federal Agencies

COTTON INSECT CONDITIONS, APRIL 26, 1945
(First Cotton Insect Survey Report for 1945)

BOLL WEEVIL

Boll weevils are now more numerous than they have been during April for many years. This is due to the large number of weevils that developed in the fields late in 1944 and the mild temperatures of the past winter. Killing frosts came late and in most places the cotton leafworms did not defoliate the plants so in many fields conditions were favorable for boll weevils to continue to increase until late in the season. As the weevils had plenty of food and entered hibernation in good condition, the survival this spring is expected to be high.

Unless there is a period of weather that is hot and dry enough to kill a large proportion of the weevils, cotton is likely to be seriously infested this season. In all localities where the boll weevil has been a serious pest in past years, cotton growers should prepare to fight them in 1945. They should get their dusting machines in shape for use this summer and have available at least 10 to 15 pounds of calcium arsenate for each acre planted to cotton.

TEXAS: Boll weevils have been reported in cotton fields in the Lower Rio Grande Valley of Texas since early in March. During the week ending April 14 they were found in 23 of 38 fields examined in Cameron County. In two fields where cotton had reached the squaring stage 67 and 14% of the squares had been punctured by boll weevils.

At Waco 20,000 weevils were placed in 40 large screen cages between Oct. 14 and Nov. 11, 1944. The winter was extremely mild with the lowest temperature, 28° F. occurring on Dec. 11 and 12. The average number of boll weevils found active in the cages during March was 98 as compared to 21 during March of 1944, 0 in 1943, 3 in 1942, 19 in 1941, and 1 in 1940.

LOUISIANA: At Tallulah 5,000 boll weevils were placed in 10 cages on Oct. 31, 1944. Between Jan. 1 and Mar. 31 the total number of active weevils observed in these cages was 799 as compared to 115 weevils in 1944, 62 in 1943, 4 in 1942, and 88 in 1941. In the examination of surface trash from woods adjacent to old cotton fields on 16 farms near Tallulah, between Feb. 26 and Mar. 28, live boll weevils were found at the average rate of 1,512 per acre. This is the largest number of boll weevils found during the spring surface trash examinations since this method of determining winter survival was started 10 years ago. The next largest spring boll weevil population (920 weevils per acre) occurred in 1941, when weevils caused more damage in Louisiana than during any year since 1923. The average number of weevils per acre in the spring surface trash examinations at Tallulah during the past 10 years was:

1945 --- 1512	1942 --- 327	1938 --- 186
1944 --- 625	1941 --- 920	1937 --- 50
1943 --- 750	1940 --- 190	1936 --- 141
	1939 --- 226	

(over)

On a percentage basis the reduction in live boll weevils in surface trash between the fall and spring examinations was much less this year than in any recent year except 1941. The reduction was 38% as compared to an average of 67% in the previous 8 years.

MISSISSIPPI: In examinations of surface trash from 9 farms in Washington County and 1 farm in Sunflower County in the Delta section of Mississippi between Nov. 28 and Dec. 13, 1944, boll weevils were found in hibernation at the rate of 1,355 weevils per acre. Similar examination made between Mar. 22 and Apr. 11, 1945 showed an average of only 97 weevils per acre or a reduction of 93%. The high reduction in the boll weevil population was probably due to the flooding of woods by excessive rainfall. Boll weevils undoubtedly survived in much larger numbers in areas in Mississippi where the woods were not flooded during the winter.

SOUTH CAROLINA: At Florence 20,000 boll weevils were placed in 40 screen cages between Oct. 15 and Nov. 15. The winter was comparatively mild as the average minimum temperature during the first 3 months of 1945 was 41° F., which is from 2 to 7 degrees higher than the average for the 5 previous years. The lowest temperature recorded during the past winter was 18° F., which is the highest minimum temperature for this area since 1941. On the other hand, there were 10 days during which the temperature fell below 25° F. Examination of the cages during the winter showed that boll weevils were more active than during any of the past 5 years. More weevils were active in the cages during March than during any of the preceding 13 years except 1939. Ten times as many weevils were active during March 1945 as in March 1944, and 5 times as many as in 1943.

The average number of live boll weevils found per acre of surface trash during the spring of 1945 was 2,580. This is more than twice as many as were found in the spring of 1944 and has been exceeded only twice during the past 8 years. The average number of live weevils per acre found in the spring surface trash examinations at Florence during the past 8 years was:

1945 --- 2580	1942 --- 1839	1939 --- 3532
1944 --- 1210	1941 --- 1960	1938 --- 1472
1943 --- 2995	1940 --- 176	

Between the December 1944 and March 1945 surface trash examinations the boll weevil population was reduced only 40% or from 4,324 to 2,580 weevils per acre, while a year ago the reduction in the weevil population between December and March was 56%.

BOLLWORM

Near Waco, Texas, the first bollworm eggs were observed on alfalfa and blue-bonnets on Mar. 7, 4 days earlier than in 1944. By April 5 bollworms had been found also on Austrian winter peas, Hubam clover, spinach, vetch, and corn.

COTTON FLEA HOPPER

By the end of March cotton flea hoppers had emerged from hibernation cages at Waco, Texas, in larger numbers than in any of the past 6 years except 1944.

CUTWORMS

Since early in March cutworm damage has been severe in some cotton fields in the Lower Rio Grande Valley in the vicinity of Matamoros, Mexico, and Brownsville, Harlingen, and San Benito, Texas. During the first week of April, a 70-acre field of Austrian winter peas near Waco, Texas, had a cutworm population of 10 to 20 cutworms per square foot of soil surface.

Cotton Insect Survey reports will be continued during 1945 when available information justifies their issuance.

Prepared April 25, 1945.



